CLAIMS

1. Use of polyoxyalkylene polycarboxylates comprising at least 75% by number of a random linear chain formation of structural units (1) and (2) illustrated by the following formulae:

$$\begin{array}{c} & H \\ & | \\ & - CH_2 -- C \\ & | \\ & COOX \end{array} \tag{1}$$

$$- CH_2 -- C \\ & | \\ & COO(C_2H_4O)n(C_3H_6O)m -- R \end{array} \tag{2}$$

in which X represents a hydrogen atom, an alkali metal, an alkaline-earth metal or ammonium, the structural units (1) being able to be identical or different; n is an integer of from 0 to 24, m is an integer of from 0 to 24, with m<n, the propylene oxide groups being able to be distributed or not in a random manner amongst the ethylene oxide groups, R represents an alkyl or alkenyl group having from 1 to 24 carbon atoms, the structural units (2) being able to be identical or different; the ratio of the number of structural units (2) to the total number of structural units (1) and (2) being between 20 and 80%, alone or in admixture, in order to improve the fluidity retention of concrete compositions having a slump value T0 of between 12 and 20cm.

- 2. Use according to claim 1, in which the polyoxyalkylene polycarboxylates comprise at least 80% by number of a random linear chain formation of structural units (1) and (2).
- 3. Use according to claim 1 or 2, in which the ratio of the number of structural units (2) to the total number of structural units (1) and (2) is between 40 and 60%.
- 4. Use according to any one of claims 1 to 3, in which m is equal to zero.
- 5. Use according to any one of claims 1 to 4, in which n is an integer of from 5 to 24.
- 6. Use according to any one of claims 1 to 5, in which R represents an alkyl or alkenyl group having from 1 to 18 carbon atoms.
- 7. Use according to claim 6, in which R is a methyl, ethyl, propyl, butyl, oleyl, stearyl, palmitoyl moiety.
- 78. Use according to any one of claims 1 to 7, in which from 0.1 to 2% of structural units (2), and/or n is equal to zero and/or m is not equal to 0 and/or R represents an alkyl or alkenyl group having from 6 to 24 carbon atoms.
- 9. Use according to any one of claims 1 to 8, in which the polyoxyalkylene polycarboxylate further has a maximum of 25% by number of structural units (1)' and (2)' which are illustrated by the following formulae:

$$\begin{array}{c} \text{CH}_{3} \\ \text{COOX} \\ \\ \text{COOX} \\ \end{array} \tag{1)} \ , \\ \\ \text{CH}_{2} \begin{array}{c} \text{CH}_{3} \\ \\ \\ \text{COO}(\text{C}_{2}\text{H}_{4}\text{O})\text{n}(\text{C}_{3}\text{H}_{6}\text{O})\text{m} - \text{R}} \\ \\ \text{COO}(\text{C}_{2}\text{H}_{4}\text{O})\text{n}(\text{C}_{3}\text{H}_{6}\text{O})\text{m} - \text{R}} \\ \end{array} \tag{2)} \ , \\ \end{array}$$

in which n, m, X and R have the meanings given in claim 1.

- 10. Use according to claim 9, in which the polyoxyalkylene polycarboxylate has from 5 to 20% by number of structural units (1)' and/or (2)'.
- 11. Use according to claim 9 or 10, in which the ratio of the number of structural units (2)' to the total number of structural units (1)' and (2)' is between 40 and 60%.
- 12. Use according to any one of claims 1 to 11, in which the polyoxyalkylene polycarboxylate has a molecular mass of between 7000 and 50000 g/mol.
- 13. Use according to any one of claims 1 to 12, in which the polyoxyalkylene polycarboxylate is in the form of an aqueous solution of from 20 to 40% of dry extract.
- 14. Use according to any one of claims 1 to 13, in which the polyoxyalkylene polycarboxylate is added to the concrete composition at a ratio of from 0.2 to 0.8% of liquid relative to the cement.

15. Fresh concrete composition having a slump value T0 of from 12 to 20 and comprising the dispersant specified in claims 1 to 14.